DOCUMENT RESUME

ED 193 826 EC 130 178

TITLE	Simple Gifts: The Education of the Gifted, Talented, and Creative. Learning Modules for Directed Study Sequences.
INSTITUTION	Wisconsin Univ., Madison, Univ. Extension.
PUB DATE	Jun 78
NOTE	81p.; For related information, see EC 130 179.
AVAILABLE FROM	University of Wisconsin-Extension, 235 Lowell Hall, 610 Langdon St., Madison, WI 53706 ($6.00)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Acceleration; *Creative Development; *Creativity; Enrichment; *Gifted; Models; *Talent; *Talent Identification; *Teaching Methods; Theories

ABSTRACT

Twelve modules are presented for the education of gifted and talented students. Modules include a brief introduction; list of objectives; overview of the content; and suggestions for core, application, and quest (further study) activities. The modules focus on the following topics: definitions of giftedness; history of their educational treatment; identification (including information on J. Guilford's Structure of Intellect Theory and characteristics of creative students); self awareness; differentiated programs; relationships with caring adults; acceleration; enrichment; interest expansion ("going wider") creativity (including a review of divergent questioning models); and issues in the field. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Simple Gifts

THE EDUCATION OF THE GIFTED, TALENTED, AND CREATIVE

Learning Modules for Directed Study Sequences

UWEX
University of Wisconsin—Extension
Extension Programs in Education
Jack Ferver, Chairperson

Robert E. Clasen
Project Director
UW-Extension

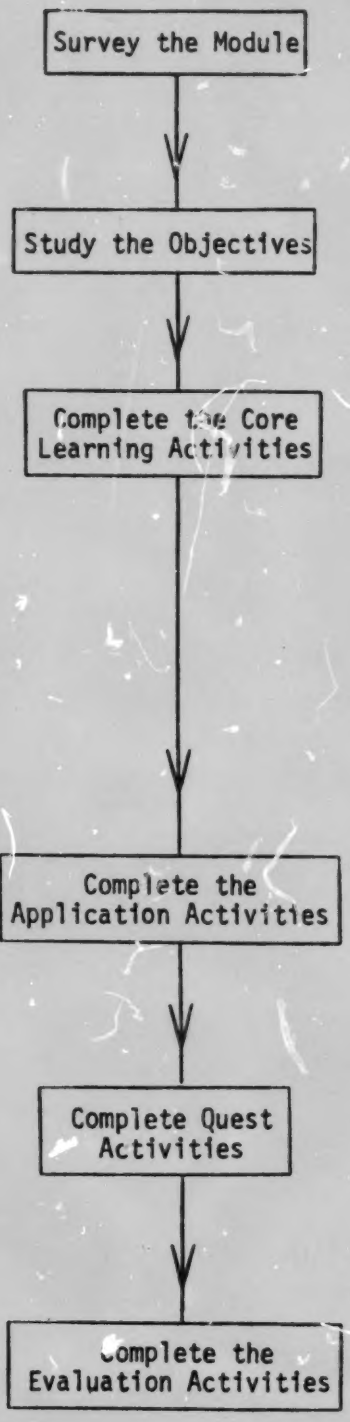
Beecham Robinson
Content Consultant
UW-Parkside

June 1978

EC 130178

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Robert E. Clasen
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Recommended Procedure for Using Simple Gifts Material



Read the introduction, the objectives, and the overview of the content carefully to find out what the module is all about. Then skim the learning activities and evaluation sections to see what you will need to do to complete the module.

Now read again and reflect on the objectives. They describe what you should be able to do when you have completed the module. Use the objectives to establish purposes for yourself as you complete each learning activity.

Now that you have an overview of the content of the module and have identified purposes for the learning activities, you are ready to carry out the core activities. These activities will enable you to acquire the concepts presented in the module and prepare you for the application activities. If your instructor has prescribed any additional learning activities (lecture, demonstrations, discussion groups), you should note these in the space provided.

You have now acquired the concepts presented in the module and should be ready to apply them to your teaching field. Your instructor should have identified which application activities you are to complete. If not, complete each application activity as described in the module.

Quest activities are designed to enable you to pursue a topic or problem of interest beyond the level presented in the module. You might wish to design and carry out a quest activity of your own. Consult with your instructor regarding the number of quest activities you are to complete for the course and/or module.

This should be the last step in your work with the module. If your instructor has prescribed evaluation activities (tests, conferences) in addition to those listed in the module, you should note this in the space provided and complete these activities as well.

MODULE ONE

Overview: Definition of Giftedness

Introduction

There are almost as many definitions of giftedness as there are definers. These definitions range from a high intelligence quotient to consistently superior performance in any socially useful endeavor. Many definitions focus upon a particular gift such as Gowan's creative production. Many focus upon giftedness as a relative construct and are content with only the top three percent on any given criteria. These definers are opposed by those who say that every person is gifted in some area---and go on to argue, mathematically, that if programming is done for six to ten gifts or talents almost all children will be involved in the program.

This suggests the importance of definition: programming for the gifted will be either inclusive or exclusive depending upon that definition. The purpose of this first module is to cause each person to develop a particular definition of giftedness, because everything that follows depends upon that definition.

Objectives

Upon completion of this module, you will

1. have developed a personal definition of giftedness
2. be able to compare and contrast that definition with the definitions of the U.S. Office of Education (1973), John Gowan (videotape), and with at least one other recognized authority (James Gallagher, Calvin Taylor, Paul Witty, or others).

Overview of the Content

1. The U.S. Office of Education defines giftedness as professionally identifiable, consistently superior performance intellectually, academically, creatively, motorically, socially, and in the visual and performing arts.
2. John Gowan defines giftedness as potential for creative production.
3. Gowan argues that we have not programmed for the gifted systematically except in athletics. In athletics, training has paid off handsomely.
4. Failure to "exercise" talent may result in its sublimation or in its expression in quixotic ways.

Learning Activities

Core Activities

1. View the videotape #1 -- Definition. An interview with John Gowan is mixed with film of gifted and talented students in various performances.

2. Read "Definition." It is the first reading in the Book of Readings. As you read the article, note particularly the five kinds of definitions.

3. Read "The Exceptional Educational Needs of the Gifted" by Sylvia Rimm (pp. 9). The article suggests what might happen if we do not recognize and accept the gifted among us.

4. Maintain a journal of your experiences with this course. The format for the journal is found on Attachment 1 in this packet.

5. Note here any (if any) additional assignments that may be provided by the instructor.

_____

_____

_____

_____

Application Activities

1. Write out your own definition of giftedness.

2. Compare (find similarities) and contrast (find differences) between your definition of giftedness and that provided by John Gowan and that of the U.S. Office of Education. Write this out. Maximum length-- two pages.

3. Discuss your definition of giftedness with one or more colleagues.

4. Analyze your school system's programming for the gifted by checking the correct column on the page following the bibliography for this unit.

Quest Activities

On the next two pages you will find two wildly different ways of looking at, thinking about and feeling for giftedness.

Read them in two different settings (they do not go together).

Look at yourself as a teacher and allow yourself to wonder if you are the kind of teachers involved in either of these.

Creative and imaginative people are often not recognized by their contemporaries. In fact often they are not recognized in school by their teachers, either. History is full of illustrations to give guidance teachers pause. Consider some of these:

Einstein was four years old before he could speak and seven before he could read. Isaac Newton did poorly in grade school, and Beethoven's music teacher once said of him, "As a composer he is hopeless." When Thomas Edison was a boy, his teachers told him he was too stupid to learn anything. F. W. Woolworth got a job in a dry goods store when he was 21, but his employers would not let him wait on a customer because he "didn't have enough sense." A newspaper editor fired Walt Disney because he had "no good ideas." Caruso's music teacher told him, "You can't sing. You have no voice at all." The director of the Imperial Opera in Vienna told Madam Schumann-Heink that she would never be a singer and advised her to buy a sewing machine. Leo Tolstoy flunked out of college; Wernher Von Braun flunked ninth-grade algebra. Admiral Richard E. Byrd had been retired from the Navy as "unfit for service" until he flew over both Poles. Louis Pasteur was rated as "mediocre" in chemistry when he attended the Royal College. Abraham Lincoln entered the Black Hawk War as a captain and came out as a private. Louisa May Alcott was told by an editor that she could never write anything that had popular appeal. Fred Waring was once rejected for high school chorus. Winston Churchill failed the sixth form (grade) in school.

Probably these people were identified as low achievers in school or as misfits on their job because of problems of relevance.

Milton E. Larson
(Rutgers University Chapter)
Fort Collins, CO

He always wanted to explain things.
But no one cared.
So he drew.
Sometimes he would draw and it wasn't anything.
He wanted to carve it in stone or write it in the sky.
He would lie out on the grass and look up in the sky.
And it would be only him and the sky and the things inside him that needed saying.

And it was after that he drew the picture.
It was a beautiful picture.
He kept it under his pillow and would let no one see it.
And he would look at it every night and think about it.
And when it was dark, and his eyes were closed, he could still see it.
And it was all of him.
And he loved it.
When he started school he brought it with him.
Not to show anyone, but just to have with him like a friend.
It was funny about school.
He sat in a square, brown desk.
Like all the other square, brown desks
And he thought it should be re
And his room was a square, brown room.
Like all the other rooms.
And it was tight and close.
And stiff.
He hated to hold the pencil and chalk,
With his arm stiff and his feet flat on the floor.
Stiff.
With the teacher watching and watching.
The teacher came and spoke to him.
She told him to wear a tie like all the other boys.
He said he didn't like them.
And she said it didn't matter!
After that they drew.
And he drew all yellow and it was the way he felt about morning.
And it was beautiful.
The teacher came and smiled at him.
"What's this?" she said. "Why don't you draw something like Ken's drawing? Isn't that beautiful?"

After that his mother bought him a tie.
And he always drew airplanes and rocket ships like everyone else.
And he threw the old picture away.
And when he lay alone looking at the sky
It was big and blue and all of everything.
But he wasn't anymore.
He was square inside
And brown
And his hands were stiff.
And he was like everyone else.
And the things inside him that needed saying didn't need it anymore.
It had stopped pushing.
It was crushed.
Stiff
Like everything else . . .

THIS POEM WAS HANDED IN TO A TEACHER IN CANADA BY A 12TH GRADE STUDENT. IT IS NOT KNOWN IF HE ACTUALLY WROTE THE POEM HIMSELF - IT IS KNOWN THAT HE COMMITTED SUICIDE A FEW WEEKS LATER. The Journal, October 1969

References

These readings are found in Walter B. Barbe and Joseph Renzulli (eds.). Psychology and Education of the Gifted, 2nd ed. (New York, Irvington Publishers), 1975.

1. Emerging Concepts of Giftedness -- E. Paul Torrance p. 48

2. The Meaning of Giftedness: An Examination of an Expanding Concept -- J. W. Getzels and P. W. Jackson p. 56

3. Basic Concepts -- Virgil S. Ward p. 61

Programming for the Gifted

	Yes	No
1. Early and continuous identification		
2. Acceleration (within disciplines)		
3. Advanced Placement (grade levels)		
4. Homogeneous Grouping		
5. Articulated Enrichment		
6. Gifted Resource Personnel		
7. Peer Tutorials		
8. Community Involvement in the School		
9. Student involvement in the Community		
10. K-12 Co-Curricular Programming		
TOTAL # OF CHECKS		
District Score %		

MODULE TWO

History of the Educational Treatment of the Gifted

Introduction

Religious dissidents fled to America to be equal before their God. "All men are created equal," thundered the Declaration of Independence. In the egalitarian West, a person was what that person did. "Separate is not equal," said the Brown decision of 1954. These and other such milestones are the legacy of the United States in which voluntary action on behalf of the less "fortunate" is a way of life.

And in this milieu is built a school system predicated upon the conjoint notions of equal opportunity and mass quality education. What happens then, to persons who can learn more, faster, in more depth, with greater control over what they learn and how they learn it?

Objectives

Upon completion of this module, you will be able to

1. relate Galton, Lombroso, Binet, Terman, and Sputnik to the education of the gifted in the United States in the last quarter of the 20th century.

2. develop a personal philosophy concerning the education of the gifted as it relates to the issue of egalitarianism.

Overview of the Content

1. Gowan characterizes the treatment of the gifted in this century as "benign neglect."

2. Julian Stanley reviews the ebbing and flowing of interest in the gifted in the last century.

3. Gary Libster looks at the educational treatment of a single gifted individual in "Bernie."

Learning Activities

Core Activities

1. View videotape #2 -- History. John Gowan traces developments in the education of the gifted and outlines his views about an adequate program for the gifted.

2. Read "Concern for Intellectually Talented Youths: How It Originated and Fluctuated" by Julian Stanley (pp. 13). Make notes of the impact ascribed to Galton, Lumbroso, Binet, Terman, and Sputnik.

3. Read "Bernie" by Garry Libster (pp. 27). As you read, try to decide whether Bernie's experiences are more like or less like the experiences of extraordinarily able people with whom you went to school.

4. Write in your journal.

5. Write in other activities assigned by your instructor.

_____

_____

_____

_____

Application Activities

1. Write a sentence indicating the impact of Lumbroso, Binet, and Sputnik still echoing in education today.

2. Read "The Gifted, Talented, and Creative in the Schools" by R. E. Clasen (which is found after the bibliography). When you have finished, write out an answer to each of the following questions:

   a. Why does man exist?

   b. What is the purpose of schools?

   c. How does being gifted relate to your answer to question 1 and your answer to question 2?

3. Write in other activities that may be assigned by your instructor.

_____

_____

_____

_____

Quest Activities

1. Gowan's characterization of the treatment of the gifted as "benign neglect" echoes Moynihan's characterization of the treatment of minorities. Discuss with one or more colleagues the situations in which neglect can truly be characterized as benign. Is treatment of the gifted one of those cases?

2. Talk with older faculty in your school. Develop a time line for the treatment of the gifted locally.

3. Using a peer nomination technique, identify the most "gifted" person in your community. Talk to that person about his/her educational experiences as they related to this "gift."

Bibliography

All are in Walter Barbe and Joseph Renzulli's Psychology and Education of the Gifted.

1. The Discovery and Encouragement of Exceptional Talent -- Lewis M. Terman p. 6

2. A Backward and Forward Glance at the Gifted -- Abraham J. Tannenbaum p. 21

3. A New Approach to the Study of Genius -- Lewis M. Terman p. 32

4. The Education of the Gifted and Creative in the U.S.A. -- Paul A. Witty p. 39

The Gifted, Talented, and Creative in the Schools

by

Robert E. Clasen
University of Wisconsin-Extension

Educational practice, what really happens from day-to-day in the classroom, school, and district is predicated upon the prevailing view. The prevailing view is that understanding of the way things are which underlies thought and behavior. The prevailing view is a kind of unspoken agreement held by teachers, administrators and the community as to principles, practices, and priorities. Because it is unspoken, the prevailing view frequently goes unarticulated in any historical record format. Nevertheless, the impact of the prevailing view can be read in the footprints of practice.

Underlying classroom practice is a series of assumptions about man, the purpose of school, learning, and about any subpopulation attending the school (in this case the gifted, talented, and creative). Figure 1 contains a synopsis of the prevailing view of these underlying assumptions since the turn of the century.

In studying Figure 1 it will be abundantly clear that thinkers and writers were advancing various views long before the time indicated here. Rousseau wrote of the inherent goodness of man and Locke about man's status as a blank slate a good many years ago. And these ideas, planted like seed, took root in the minds of many writers, thinkers,

	Man	School Emphasis	Psychology of Learning	View of the Gifted
1910	Evil	Knowledge	Learning is Internal	Talent will out They do not need special help. Accelerate (if necessary).
1950	Blank Slate	Society	Learning is External	Human Resource for keeping America first.
1990	Good	Individual	Learning is Interactionist	Self-actualizing individuals who will probably benefit society.

Figure 1. The Prevailing View. The (generally) unspoken assumptions underlying the day to day operations of the school.

and teachers, bearing fruit in treatises, articles, and experimental practices. But they did not become the dominant metaphor in American education until approximately the time noted. And they did not impact upon educational practice through the prevailing view until somewhat later.

- 1900 -

It seems clear that the educational treatment of the gifted, talented, and creative arises from educational philosophies and psychologies prevalent at the time, that is, from the prevailing view. At the turn of the 20th century the predominant philosophies in American education were those of the Catholic and Protestant churches. Whether perfectible or not, man was basically evil. Freudian psychology was in its ascendancy, and learning, still pretty much a mystery, was regarded as primarily an internal act.

Schools existed in society to transmit knowledge and the American way of life, to assist with the socialization of immigrants, and to prepare workers for the newly industrialized society.

The gifted "could make it on their own." Educators were fearful of "early ripe-early rot," and the Lombroso dictum that insanity and genius were close cousins if not brothers was widely accepted.

Psychological testing soon became a force in American education, leading up to the beginnings of the Terman studies in the 1920's. These studies were not interventionist; rather, they were basically specimen observations.

- 1950 -

By basically ignoring the gifted and letting the "cream float to

the top," the United States managed to survive two world wars and a depression. But then, in 1957, something absolutely unthinkable occurred. Russia got a satellite into orbit before we did. And as Sputnik circled the globe, it beeped an outpouring of interest in the education of the gifted and talented.

By now the social good was the ascendant reason for schools in society. Stimulus-response psychology was the order of the day. Learning was regarded as externally manipulable, and that was all right, because man was a blank slate upon which we (particularly teachers) could write.

Public and private funds became available for crash programs for the gifted and talented, primarily in the areas of national interest, such as the "hard" sciences, technology, and foreign languages. Talented youth were fed a hard diet of rigorous courses and were expected to fulfill their potentials and submit their developed abilities for the service of society. The high school became the scene of the national talent hunt and gifted students were fed upon the new curricula emanating from the National Science Foundation and the Office of Education as a way to get them ready for the rigors of academic life in college.

Neglected in all this, of course, was any talent save intellectual and academic. Neglected, too, were the arts. And neglected were the culturally and socially disadvantaged -- and women.

By the 1960's the attention of American education was diverted from the gifted by attention to civil rights, and to the "war on poverty." Finally, the handicapped learner was pushed to the top of

the concern pyramid. We got over the cold war mentality in education -- and as we did, our fever-pitched interest in the gifted waned, again.

Currently, interest in the gifted, talented, and creative is waxing. This time the underlying philosophy seems to be - man is good." Schools exist in society as places where individuals can develop to the limits of their ability. We must work with the gifted -- not because society deserves it, but because they deserve it. Each, if properly assisted to develop, will become a happy functioning individual capable of effecting his own happiness. In all likelihood; in so doing, he/she will help to create things which will result in happiness for others -- perhaps the rest of society.

Since 1970 the gifted have been recognized by Congress; parent groups have sprung up; many states have begun an active effort to program for the gifted; and colleges and universities have begun to turn to the education of teachers especially equipped to work with the gifted, talented, and creative.

- 1990 -

Authors who will influence the prevailing view of 1990 speak of "self-actualization." A multicultural United States is being described in which the validity of the individual and the individual's culture is maintained (at least) and enhanced.

The definition of the gifted put forth by the Office of Education describes six areas in which gifts and talents exist. Other writers have developed talent totems, which are infinitely expandable to the point where some conclude that every child may well be gifted in something. Whether or not these notions work their way into educational prevailing view will be known shortly.

*Date	Event	Implication
1895	Lombroso publishes Man of Genius.	Gifted viewed as persons with a real problem.
1904	Binet develops the first practical intelligence test.	Intelligence becomes defined in terms of what the test measures.
1920	Terman begins his monumental Genetic Study of Genius.	Assumptions and theories about gifted, talented, and creative persons begin to be put to rigorous testing.
1926	Cox publishes The Early Mental Traits of Three Hundred Geniuses.	The idea of studying genius in retrospect is at its zenith.
1947	American Association for Gifted Children established.	A national advocacy group is formed.
1953	The National Association for Gifted Children publishes The Gifted Child Quarterly.	An association composed of parents and teachers begins publication of a major journal about the gifted.
1957	Russians orbit Sputnik.	A spate of activity, viz, gifted, talented, creative, is focussed upon national goals.
1959	Illinois initiates statewide gifted/talented programming.	A state commits to the gifted population.
1960's	Civil Rights Movement crests in America.	Equality of opportunity supplants gifted as the "hot" issue.
1965	Elementary and Secondary Education Act passed.	Research monies are available under Title IV. Innovative projects are funded under Title III.
1968	ESEA is amended.	The Office of Education is ordered to report to the Congress as to the condition of the education of the gifted and talented.
973	Report to Congress is made.	An office for gifted and talented is established in O.E. (in the bureau for the handicapped).
1976	ESEA is further amended.	Gifted identified as a target group for programs and projects.
1973-1977	Awareness activities result.	Efforts in almost every state of the union have resulted in a rekindled interest in the gifted, talented and creative child.

* There is, of course, a myriad of other dates and events: these are illustrative.

MODULE THREE

Identification I

Introdution

And now---the nitty gritty. One of the manifest headaches in programming for the gifted is figuring out who they are. Individual differences are everywhere manifest, but which ones and which qualities of which ones deserve the title of gifted.

Some schools use a 140 IQ cutoff but much of the literature on creativity suggests that this would eliminate many of the high creatives. Many schools have bands, orchestras, sports teams, drama clubs, and student councils. Does self-selection into these take care of the motor, social, and visual and performing arts talent in the school. Some schools use teacher judgment, which has been demonstrated to be about 50 percent inaccurate, i.e., it misses 50 percent of those who might be defined as gifted on other criteria. Some schools only program when parents complain enough.

How does one identify the gifted?

Objectives

At the completion of this module, you will

1. be able to list at least three advantages and disadvantages of multiple-measure identification systems.
2. have devised and implemented an identification system in your own classroom.

Overview of the Content

1. Barbara LeRose (Racine, WI, public schools) argues that identification cannot proceed without consideration of the cultural context.
2. Bea Kranz speaks to the efficacy of the IQ test as the sole index of giftedness.
3. Tongue and Sperling provide a most comprehensive identification model with appropriate instrumentation.

Learning Activities

Core Activities

1. View videotape #3 -- Identification I. Note carefully the comments made by Barbara LeRose and Bea Kranz about single indices of giftedness.

2. Read through "Gifted and Talented, an Identification Model" by Tongue and Sperling. (pp. 47)

   This is an exhaustive article. At first you will find it overwhelming it is one of the definitive works on identification. Familiarize yourself with all aspects of it, then begin to use each aspect. It mellows with age and use; and you will want to use parts of it in completing your assignment for this module.

3. Write other activities as assigned by your instructors here.

_____

_____

_____

_____

Application Activities

1. Choose one of the teacher judgment instruments from the Tongue and Sperling article. Rate the members of your current class on this instrument. When you have finished rating them, rank order the top ten from 1 (highest, best) to 10.

2. Now find the most recent standardized test score for these same children. Use the total score for the battery.

   a. Are the same ten children still on top?

   b. Rank order the same ten children from 1-10 according to their achievement test score.

3. Now find the most recent IQ assessment on this class. Are the top ten IQ children the same ones who were tops in teacher judgment or achievement? Rank order the first group of ten children by IQ from 1-10.

4. Turn in to your instructor a sheet of paper that looks like this.

	Child	Teacher Rating	Achievement Rating	IQ Rating
(No Names)	1	1	6	1
	2	2	5	3
	3	3	4	5
	4	4	3	9
	5	5	2	7
	6	6	1	6
	7	7	9	2
	8	8	10	4
	9	9	8	8
	10	10	7	10

There were __ children who would have fallen into the top ten in achievement who were not in the teacher judgment pool.

There were __ children who would have fallen in the top ten in IQ who were not in the teacher judgment pool.

5. On the basis of this activity and your readings, describe how you think you should identify the gifted in your classroom.

6. Other activities assigned by your instructor.

Quest Activities

1. An IQ score is a single number -- for example - 130.

   Write down your estimate of an individual's capability, given that you know the IQ to be 130.

   A. Estimate of vocabulary.
   B. Estimate of memory.
   C. Estimate of ability to think.
   D. Estimate of ability to read.
   E. Estimate of ability to write.
   F. Estimate of creative ability.

   Be sure you have responded before going on.

   With an IQ of 130, most of us would respond that, all things being equal the student would have good to excellent ability in each of the areas enumerated.

   Now, write a brief paragraph explaining why you responded as you did.

2. In the pages after the bibliography for this module, you will find some information on Guilford's "Structure of the Intellect." Read it carefully and respond to all of the questions, 1-21. Theoretically, each of these questions will tap a different thought process.

3. According to Guilford's model, there are 120 ways individuals can be more or less able (4 contents x 5 operations x 6 classes = 120). Researchers have been able to isolate 80 of them.

   Using content from a subject you teach and the questions you just answered as a model, write ten new questions (be sure to write three or more kinds of question).

   What implications do your new questions have for the way students can be expected to respond?

4. Other activities identified by your instructor.

_____

_____

_____

_____

_____

Bibliography

These articles are in Barbe-Renzulli, The Psychology and Education of the Gifted.

1. Problems in the Identification of Intellectually Gifted Pupils -- Ruth A. Martinson and Leon M. Lessinger p. 232

2. Problems in the Assessment of Creative Thinking -- Donald J. Treffinger, Joseph S. Renzulli, and John F. Feldhusen p. 240

3. Locating Gifted Children in Junior High School -- Carl W. Pegnano and Jack W. Birch p. 248

4. Identification of the Socially Gifted -- Roy K. Jarecky p. 256

5. Scale for Rating the Behavioral Characteristics of Superior Students -- Joseph S. Renzulli, Robert K. Hartman, and Carolyn M. Callahan p. 264

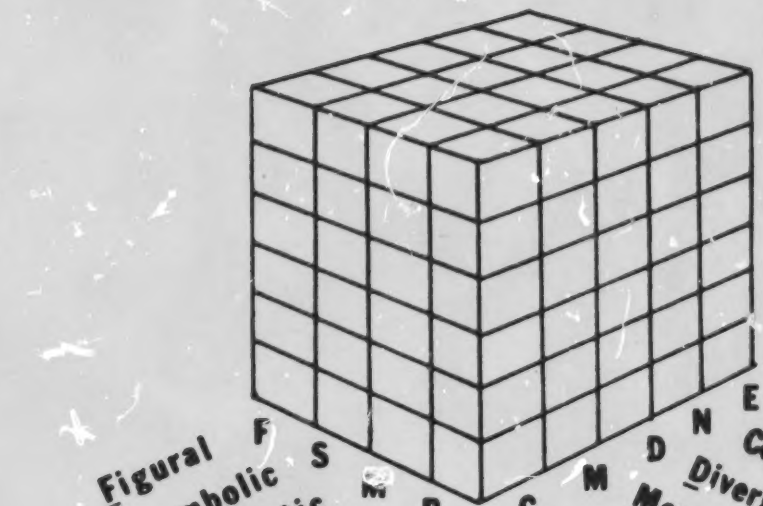
6. "What Kind of Person Are You?" A Brief Screening Device for Identifying Creatively Gifted Adolescents and Adults -- E. Paul Torrance and Joe Khatena p. 274

7. Identification: Responsibility of Both Principal and Teachers -- John C Gowan p. 280

8. The Measurement of Individual Differences in Originality -- R. C. Wilson, J. P. Guilford, and P. R. Christensen p. 282

Structure of the Intellect Model

J. P. Guilford



CONTENTS - OPERATIONS - PRODUCTS

DEFINITIONS OF STRUCTURE OF INTELLECT CATEGORIES

CONTENTS: Broad classes or types of information perceived by the learner.

FIGURAL. Information in concrete forms as perceived or as recalled in the form of images. Things which stand for themselves. Examples: a pencil, an odor, a musical sound, an apple.

SYMBOLIC. Information in the form of signs which have no significance or meaning by themselves. Symbols, however, have an analogue which does have a meaning. Examples: letters, numbers, musical notes, codes.

SEMANTIC. Information in the form of concepts or ideas to which words are often applied. Ideas which are dealt with through language. Examples: verbal thinking, verbal communication.

BEHAVIORAL. Information involving human interactions. Interactions which concern values, attitudes, needs, desires, moods, tensions, perceptions, and thoughts.

OPERATIONS: Major kinds of intellectual processes or activities. The things that an organism does in processing information.

COGNITION. Immediate discovery, awareness, rediscovery, or recognition of information in various forms.

MEMORY. Retention of newly gained information.

DIVERGENT PRODUCTION. Generation of logical alternative from given information with emphasis on variety, quantity, and relevance of response.

CONVERGENT PRODUCTION. Generation of logical conclusions from given information where the emphasis is upon achieving a unique or conventionally best response.

EVALUATION. Comparison of items of information in terms of variables in making judgments, correctness, suitability, adequacy, desirability of the information.

PRODUCTS: The organization that information takes in the learner's processing of the information.

UNITS. Individual segments of information having a thing quality.

CLASSES. Sets or groups of items of information grouped together by virtue of common properties.

RELATIONS. Connections between items of information.

SYSTEMS. Organized or structured aggregates of items of information. Complexes of interrelated or interacting parts.

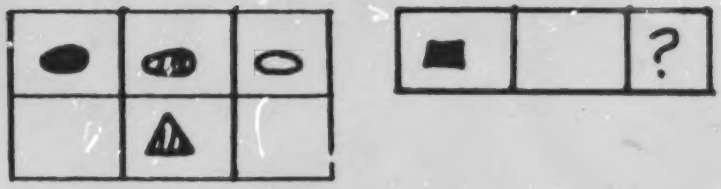
TRANSFORMATIONS. Changes of various kinds, redefinitions, shifts, transitions, or modifications in existing information.

IMPLICATIONS. Circumstantial connections between items of information. Something that is expected, anticipated, or predicted.

RELATIONS and SYSTEMS

TASK	OPERATION	CONTENT	PRODUCT
1. Figure Matrix Test	Cognition	Figural	Relations

EXAMPLE:



2. Memory for Letter Series — Memory — Symbolic — Relations

EXAMPLE: AA AAA AA AAA AA AAA

3. Remembered Relations — Memory — Semantic — Relations

EXAMPLE: Snow is whiter than Sand
Gold is more valuable than lead
Diamonds are harder than gold

QUESTION: Gold is _____ than Diamonds

a. harder
b. shinier
c. blacker
d. softer

4. Alternate Additions — Divergent — Symbolic — Relations

EXAMPLE: See how many ways you can combine the numbers 1, 3, 4, 2, and 5 to get a total of 6. You may use addition, subtraction, division, or multiplication.

5. Inventive Opposites — Divergent — Semantic — Relations

EXAMPLE: Below is a list of words. For each word write two words which are opposite in meaning. The first letter of each opposite word is given.

1. fill — e _____ d _____
2. little — l _____ h _____
3. correct — f _____ w _____

TASK	OPERATION	CONTENT	PRODUCT
6. Simile Insertions	Divergent	Semantic	Relations

EXAMPLE: Fill the blanks below with as many different words as you can.

1. Bob is as quiet as a (n) _____

2. Mr. Hill is as tall as a (n) _____

7. Inventive Verbal Relations	Convergent	Semantic	Relations

EXAMPLE: (a) is the opposite of (b)
(a) black: (b) white

1 a. heavy: (b) _____
2 a. hot: (b) _____

8. Word Relations	Cognition	Symbolic	Relations

EXAMPLE: Put the word that belongs in the space provided.

DOT - TOD
RAT - TAR
TORT - _____
NOEL - _____

9. Word Matrix	Cognition	Semantic	Relations

EXAMPLE: Which word should go in the blank space to fulfill the relationship that calls for it?

leg	walk	foot
arm	write	_____

10. Letter Series	Cognition	Symbolic	Systems

EXAMPLE: What letters are needed in the blank spaces to extend the series?

1 2 2 2 3 2 ____ ____

S A S E S I ____ ____

TASK	OPERATION	CONTENT	PRODUCT
11. Letter Triangle	Cognition	Semantic	Systems

EXAMPLE: Put the letter which fits where the question mark is.

A	B	C	_____
_____	_____	N	_____
_____	P	?	F
J	I	_____	_____

12. Necessary Arithmetic Operations	Cognition	Semantic	Systems

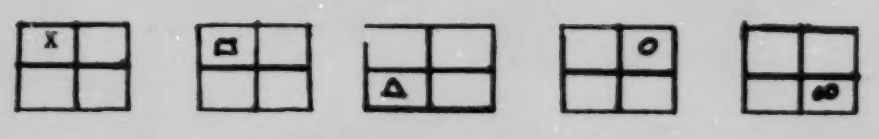
EXAMPLE: What operations are utilized or required to reach a solution to the following problem?

John had 8 nickels and 10 dimes.
He wanted to buy a rope for 97¢.
How much money did he have left?

1. multiply, add, subtract
2. divide, add, multiply
3. add, multiply, divide
4. subtract, add, subtract

13. Space Memory	Memory	Figural	Systems

EXAMPLE:



14. Memory for Order of listed numbers	Memory	Symbolic	Systems

EXAMPLE:

74
36
47
23
37

1. Which number came first?
2. Which number came exactly in the middle?

15. Position in Succession	Memory	Semantic	Systems

EXAMPLE: 1. red green brown yellow blue

QUESTION: Which was exactly like succession 1?

brown green blue yellow red

TASK		OPERATION	CONTENT	PRODUCT

red green brown yellow blue

red blue yellow green brown

16. Word Changes — Convergent — Symbolic — Systems

EXAMPLE: Change only one letter at a time and end up with the last word.

Coat

_____

_____

Moon

17. Operations Sequence — Convergent — Symbolic — Systems

EXAMPLE: Start with 4, and get 8

a. + 2 ORDER _____

b. ÷ 2 _____

c. x 2 _____

18. Picture Arrangement — Convergent — Semantic — Systems

EXAMPLE: Arranging pictures in the order which they belong.

19. Word Matrices — Convergent — Semantic — Systems

EXAMPLE: Place the correct words in the blanks.

WORK LIST:			
Ship	car	_____	street
horn			
train			
ball	_____	_____	_____
whistle			
track			
	_____	_____	ocean

TASK	OPERATION	CONTENT	PRODUCT
20. Temporal Orderings	Convergent	Semantic	Systems

EXAMPLE:
A. Place the seeds in the ground
B. Put fertilizer on the ground
C. Plow the place where the garden is to be

QUESTION: What is the first step?
What is the last step?

21. Compass Orientation	Cognition	Kinesthetic	Systems

EXAMPLE: YOU ARE FLYING	AND TURN	NEW DIRECTION
North	right	_____
East	right	_____
South	left	_____

MODULE FOUR

Identification II

Introduction

Some students identify themselves as gifted by pleasing their teachers, doing well on tests, and getting good grades. Other students call attention to themselves by, in effect, marching to a different drummer. In many instances, divergence from the golden mean, from group norms, and from the tried and true is costly to the student. It's hard to think of a school where no one conforms.

Cal Taylor has demonstrated that the correlation between medical school grades and future significant contribution to the field is essentially zero. Getzels and Jackson have demonstrated that after a certain threshold the correlation between creativity scores and IQ scores is very low. When the Milwaukee 4th Street School was asked to mainstream some exceptional students into their Talented and Gifted School, they chose kids who were labeled as "emotionally disturbed" because they believed that many persons so labeled in reality are maladjusted high creatives. They were right.

The problem, of course, is to differentiate between the troublemaker and the troubled, the disturbed and the disturbing. If it were easy, it would have been done long ago.

Objectives

At the end of this module, you will

1. be able to list five characteristics generally attributed to creative students.

2. identify creative students in the classroom and contrast them with a list of high IQ students

Overview of the Content

1. According to Paul Torrance, creative students can think more fluently, more flexibily, more originally, and more elaborately than their less creative agemates.

2. Bea Kranz argues for an expansion of the "Talent Totem" idea to include "one-sided" kids and kids who are culturally gifted.

3. Gary Davis and Sylvia Rimm list the attributes of creative persons.

4. Gary and Sylvia make a present of G.I.F.T., an instrument for locating creative students.

5. Leonore Dickmann outlines some of the things that teachers can do to live successfully in the same room with creative students.

Learning Activities

Core Activities

1. View videotape #4 - Identification II dealing with diverging students. Pay close attention to Bea Kranz's arguments for multiple talent identification.

2. Read Gary Davis and Sylvia Rimm "Characteristics of Creatively Gifted Students" (Readings pp. 117).

3. Read (skim for now) Dickmann's "Fostering Creativity is Basic for the Gifted and Talented" (Readings pp. 137).

4. Write in your journal.

Application Activities

1. Use the Renzulli-Hartman creativity sub-scale from the Tongue and Sperling article (Readings, pp 79). Rate ten students, selected at random, on this scale. Now rate these same ten students using G.I.F.T. from the Davis-Rimm article (Readings pp. 130). Rank order the students' creativity by each instrument. Write a brief interpretation of your results.

2. Choose one suggestion from L. Dickmann's article. Try it on your class. Note carefully whether the same students appear to be the "best" students. Write a brief paragraph describing the suggestion you took and the response of certain individuals (two-three) in the class to it.

3. Write in any additional assignments from the instructor here.

Quest Activities

1. On the page after the bibliography you will find the basic directions for the famous Torrance "circles" test. Take the test yourself!

Fluency Score	_____	Count the number of circles you used.
Flexibility Score	_____	Count the number of circles used which belong in different essential categories. (All faces = 1, fruits = 1, balloons = 1, etc.)
Originality	_____	Do not count faces, fruits, balls, balloons, vegetables or wheels. How many circles have something else?
Elaborateness	_____	Count each detail of each circle.
Add up your Score	_____	

Of course, the real scoring strategy is more complex than this -- the intent here is to give some notion of one definition of creativity. Do you feel, now, that fluency, flexibility, elaborateness, and originality may have something to do with creativity?

2. Behind the face test you will find Cal Taylor's original Talent Totem paper. Read it carefully. Do you choose to be a talent developer?

Evaluation

1. Submit the written products from the application activities to your instructor.

2. Note any other evaluation activities your instructor may request here.

_____

_____

_____

_____

_____

References

All of these articles may be found in Barbe-Renzulli.

1. The Nature and Nurture of Creative Talent -- Donald W. MacKinnon p. 151

2. Originality in Relation to Personality and Intellect -- Frank Barron p. 168

3. Identification of Creativity -- The Individual -- Marie Dellas and Eugene L. Gaier p. 179

4. The Enhancement of Creativity -- Harold K. Hughes p. 361

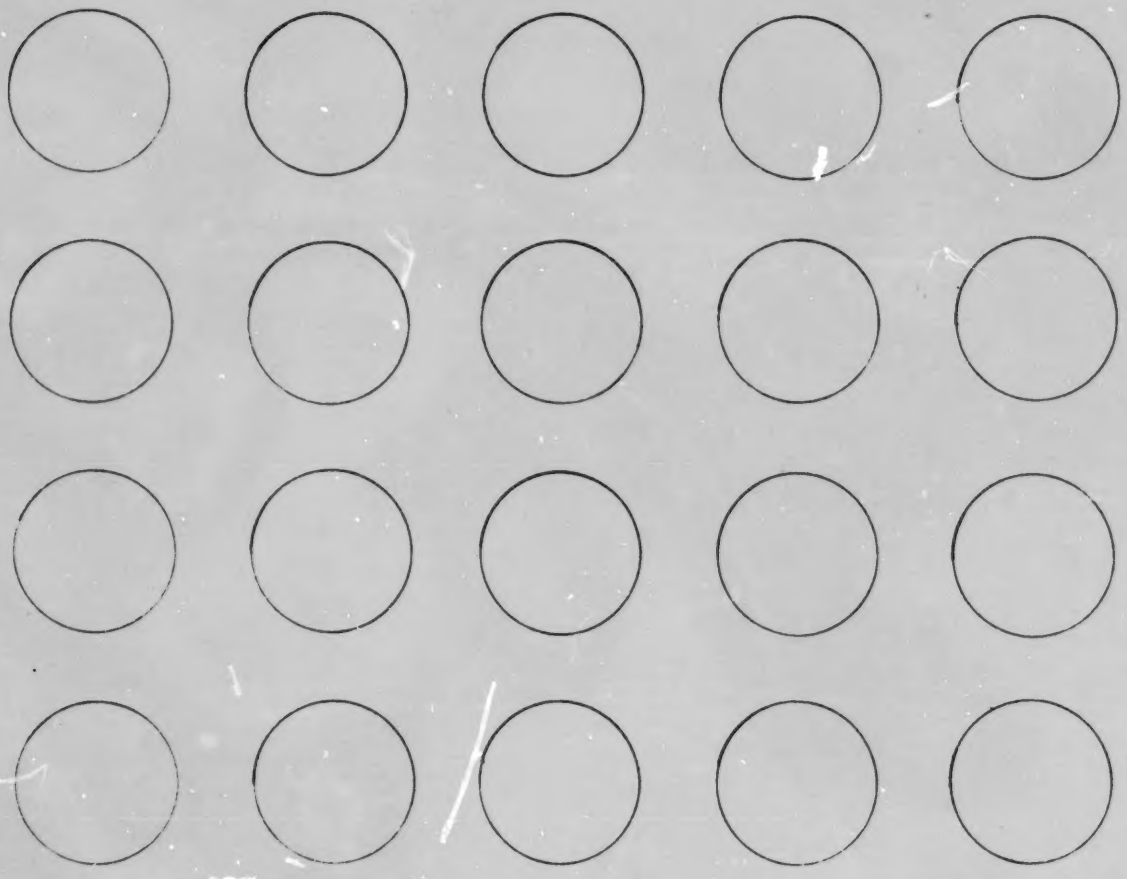
5. Methods and Educational Programs for Stimulating Creativity -- Donald J. Treffinger and John Curtis Gowan p. 371

6. Developing Imagination Through SCAMPER -- Robert F. Eberle p. 387

7. Methods for Encouraging Creativity in the Classroom -- Robert A. Goodale p. 391

In ten minutes see how many objects you can make from the circles below. A circle should be the main part of whatever you make. With pencil and crayon add lines to the circles to complete your picture. Your lines can be inside the circle, outside the circle, or both inside and outside the circle. Try to think of things that no one else will think of. Make as many things as you can and put as many ideas as you can in each one. Add labels or titles, if the identity of the object is not clear.

START:



SPECIAL FEATURE ON THE GIFTED AND CREATIVE

BE TALENT DEVELOPERS

. . . AS WELL AS KNOWLEDGE DISPENSERS

CALVIN W. TAYLOR, *professor of psychology, University of Utah, Salt Lake City.*

• **Nearly all students are talented;** that is, can be above average in at least one of the many important intellectual talents we can now measure. Furthermore, with appropriate changes in teaching, they can use multiple talents to acquire knowledge in the classroom. In fact, they can exercise and develop every one of the known intellectual talents as their minds ponder, toy with, and otherwise process knowledge. Each of these different talents can function in acquiring knowledge across all subject matter areas.

If the complexity of talents, however, is *not* recognized and students are seen through the oversimplified picture of only one talent then they will all be lined up from highest to lowest, solely on the basis of that single talent. They may almost be pegged by teachers and students as to where they belong.

For example, Sharon, a beginning seventh grader, had consistently obtained high grades and had always done exactly what she was asked to do and in a manner pleasing to her teachers. However, her schoolmate David did not like typical school assignments and was just average or below on activities requiring academic talent.

When they were viewed across two talents instead of only one, strikingly different pictures emerged; their profiles across the two talents had quite opposite shapes. In a productive- and creative-thinking classroom where students were to be thinkers—not mere learners—Sharon's initial outward performances in the thinking activities and discussions could have been scored zero. Eventually, after many sessions of this type, she learned to participate and became a functioning, though somewhat below average, student in this productive-thinking classroom.

David, on the other hand, promptly showed great talent in thinking activities and in matching wits with anyone, including more than 15 teacher-observers one day. In this teacher-student situation, he suggested several surprising ways to vary the ongoing activities. As a result, the teacher-observers changed into participants on the same status level as the students and began dealing with them as equals. Both groups then communicated freely and frankly during a wholesome cathartic session, full of excitement and laughter.

After several highly successful performances in this new type of classroom, David indicated that he did not particularly like to read and write, but obviously he loved to learn by thinking and having lively exchanges with others. In such sessions he was a leader—socially as well as intellectually—demonstrating a great deal of thinking-talent power.

At the end of one session, we all examined David's entire elementary school record. He had started out as a B+ student and had faded to C— as schoolwork became more highly academic and less thought-provoking and own-idea-generating in nature.

The school system had continually told David that he was an unpromising person without talent and that he should prepare to drop out. Yet his performance in a thinking classroom showed that he was highly talented in an important area of talent. Furthermore, David was the only student who dickered about how much he and others would be paid for leaving their playgrounds and working with us a few days during summer vacation. He showed great promise of

Reprinted with permission of Today's Education -- NEA Journal

being a very effective person in world-of-work activities involving thinking and exchanging ideas with others. Overall, David is probably more promising for a competitive adult career than Sharon, who is efficient at getting good grades in a closely supervised, learning-regurgitating type of system where she never has to produce and display ideas of her own.

There is merit in further extending profiles to include a third type of talent. Another boy, Clarence, not only made good grades but, unlike Sharon, also displayed a high degree of talent in generating ideas in the productive-thinking classroom. But a third type of classroom activity, calling for evaluative or decision-making talent, gave him much difficulty, especially in dealing with his own ideas, in judging which ones were good and which ones should be discarded.

Thus, his high profile lasted across only two talents, dropping in the third, decision-making.

In sharp contrast, Sally had been slightly below the middle of the class both in typical academic activities and in those demanding productive-thinking talent. However, when it came to judging ideas and making good, even wise, decisions, Sally possessed a talent strength that enabled her to select among ideas much more efficiently than could most students—including Clarence, the high idea-producer. She, like David, was high in at least one talent area. But we had to profile Sally across three talents to discover her strong talent in the priceless wisdom area.

For a third of a century, research on intellectual talents has clearly shown that we have talents of many different types, not just one academic (or "general intelligence") type. Nonetheless, this evidence can be quite a shocker to those with an overgeneralized and fixed idea about what a general intelligence test measures.

Thurstone and his students discovered the first 20 primary mental abilities. Guilford greatly extended these through his periodic table of the mind (the Structure of Intellect) with its 120 possible talents, more than 80 of which have now been discovered. From this up-to-date view, typical intelligence tests cover no more than eight talents, about one-tenth of those now known — therefore, intelligence tests do *not* cover the other nine-tenths now measurable.

We suggest a grouping of talents, based upon world-of-work needs, specifying at present only academic talent and five other often extremely important types: creative (and productive) talent, evaluative or decision-making talent, planning talent, forecasting talent, and communication talent.

If we limit ourselves to measuring students by one talent alone, we will find that only the top 10 percent are highly gifted. But if we measure across several different talents, the percent of highly gifted will increase tremendously. Across three talents, the percent of gifted in at least one talent area will, in fact, more than double; across six talents the percent of highly gifted will triple.

When we arrange a group of students on each of several talent ladders, those at the bottom of the old academic talent ladder—those heretofore labeled "educationally deprived"—will rise as a subgroup to be almost average as far as each of the other five types of talents are concerned. A third or more of them are likely to be above average on each new talent ladder. Since we have not been reaching these students, we should try eliciting as many different talents as possible. If we succeed, then those who had not been flourishing in the old talent area will discover some areas where they are promising individuals and perhaps even star performers.

If we limit ourselves to cultivating merely one talent, only 50 percent of our students will have a chance to be above the average (the median) in classes. If we consider two lowly related talents, the percent above average in at least one of the two talents will be about 67 percent; for three talents, in the mid 70's; for four talents, in the low 80's, and so on. Across six talents, about 90 percent will be above average and almost all others will be nearly average in at least one talent area. Therefore, *almost all students will be above average* in at least one talent area. (In addition, almost everyone will learn that he is below average in at least one talent area.)

Now that we know how to measure and foster multiple talents, our challenge is to find ways of cultivating most of them in school instead of letting them lie largely dormant.

Talent searches should occur right in the classroom; they take no extra time. And students can almost automatically acquire greater knowledge if they use multiple talents rather than focus directly and solely on learning facts—as they are so often asked to do. Having many pathways through their complex nervous systems, students can use several different internal talents at one time or another to process knowledge during their school week. Each student will thereby discover the talent in which he most excels. Then, whenever he desires, he can use his one highest-level talent as his own best way of acquiring knowledge.

There have always been some teachers who are talent developers —who activate human resources. Emerging from research, this multiple talent approach features all teachers as catalysts in more effectively developing individual talents in the following ways: by sharpening their abilities to *identify* student talents, by increasing their skills to *cultivate* student talents, and by *deliberately working* across a greater number of student talents than was ever before possible. For teachers, the talent developer role is becoming more important while their role as knowledge dispensers may be diminishing.

Teachers must use a different approach to foster each type of talent. They can learn about their own profiles of teaching for each type of talent. One teacher, for example, may be an outstanding developer of decision-making talent but only average as a developer of academic talent and below average as a developer of creative talent. Another may be best in catalyzing creative talents, and a third teacher may be truly excellent in developing academic talents. Different teachers

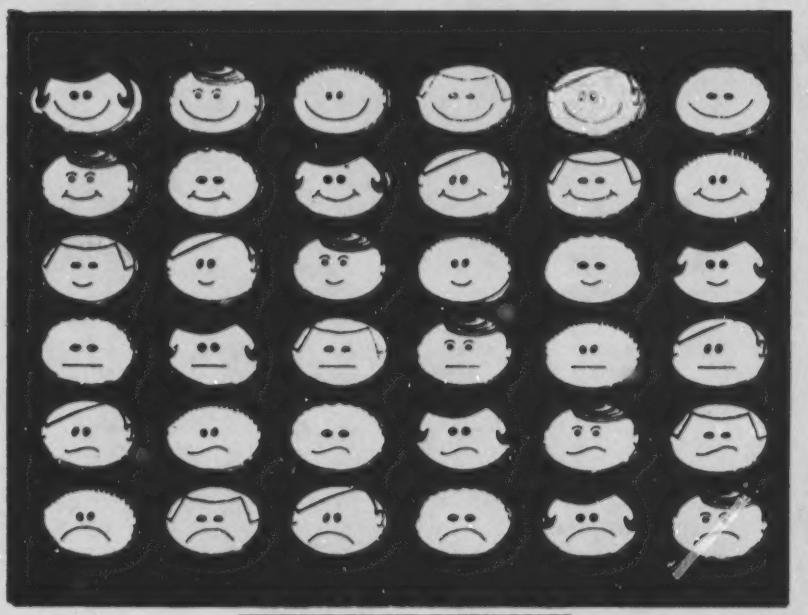
could specialize to become experts in developing particular talents—students could then study under each of these separate talent specialists.

Educational programs could be evaluated by determining (a) how much students have achieved in terms of experiencing the entire keyboard of their minds—the full range of their talent potentialities, and (b) how much they have gained in subject matter mastery. (This double perspective, incidentally, might warn us that much of the type of programed instruction typically being developed is probably narrowing the band of talents currently being cultivated.) A greater positive spread effect or transfer of training may occur through the talents developed than through the knowledge acquired. Nonetheless, multiple talent teaching capitalizes on both to increase the total transfer of training into later situations and provides the best basis available for a potent educational revolution.

But the main goal in multiple talent teaching is to have students use more talents than they do at present. The creative (and productive) type of talent is the one most ready to expand the narrow band of talents with which we now concern ourselves. To show teachers how to teach for creativity, our traveling task force team has given in-service workshops in several states. Eventually, we have the teachers do their own demonstrations of teaching for productive and creative processes in students.

We have already done the necessary "educational engineering" work by changing many tests for creative and for communication talents into a booklet of classroom exercises and by incorporating appropriate subject matter into each one. Effective classroom technologies for these two talent areas are therefore available and are being used by many teachers in Granite, Jordan, Davis County, and Iron County school districts in Utah, in Laramie, Wyoming, and in the large, important Project Impact in Polk County, Iowa.

Think what multiple talent teaching means! Regardless of the limitations of IQ, cultural background, or other learning inhibitors, this approach provides the possibility that 9 out of 10 children in a class can employ at least one talent with above-average efficiency both for acquiring knowledge and for solving problems. An exciting thought, indeed. This student-centered, talent-focused approach holds the best hope of systematically reaching each and every student in our classrooms and of finding promise in all students from all parts of our society, a partial fulfillment of one of the great American dreams.



MULTIPLE TALENT TOTEM POLES

When potentials in both creative and academic talents are viewed, colleges will face a new problem, the unmet challenge of the creative students. We appear to be in sore need of a new college planned for the creatively talented as a small start toward counterbalancing our more than 2,800 colleges and universities for the academically talented. Predicted percentile ranks in creative talent and in academic talent, respectively, on the Alpha Biographical Inventory for 34 students applying to Wilmington College in North Carolina were, at one extreme, 83-21 and 95-54 and, at the other extreme, 29-64 and 42-82.

The total annual loss of nearly a half million high school graduates who are talented in one way or another but fail to get into college is estimated from a North Carolina study. The study identified those in the top quarter on creative potential but in the bottom 60 percent on predicted academic talent. The first score is *not* oriented toward present schools, but is designed to predict creative and productive performance in one's life career. Furthermore, evidence to date on whites and Negroes indicates that this new score is racially unbiased and culturally fair.

If we apply the multiple talent approach in the educational process, greater numbers of our students will be more successful both in and out of school. A natural by-product will be an increase in each student's individuality. Each will experience and display his own unique profile across talents and will thus become more self-directed. Talents quite appropriately come at the center rather than at the periphery of our focus, for it takes talented people to solve our most difficult problems and to create a better world.

We are always heartened to find how remarkably ready students are to participate as soon as we bring each new talent adventure to them —they are our greatest asset. We must, therefore, no longer allow most of their talents to remain virtually submerged. Nor should we deprive them of the exciting opportunities and rewards that can be theirs through the awakening and strengthening of their creative and other talent powers. •

TWO EXTREMELY DIFFERENT WAYS OF DISTRIBUTING 24 CLASS HOURS
(With an "x" for each Class Hour)

FIGURE 1A

CONTENT ACQUIRED BY STUDENTS	Academic Talents	Creative Talents	Communication Talents	Planning Talents	Decision Making Talents	Forecasting Talents	Other Types of Talents	TOTALS
Language Arts	xxx							xxx
Social Studies	xxx							xxx
Humanities	xxx							xxx
Arts	xxx							xxx
Biological Sciences	xxx							xxx
Physical Sciences	xxx							xxx
Mathematics	xxx							xxx
Other Subjects	xxx							xxx
TOTALS	xxxxxx xxxxxx xxxxxx xxxxxx	0	0	0	0	0	0	24 x's Grand Total

DIFFERENT TALENT PROCESSES IN STUDENTS

FIGURE 1B

CONTENT ACQUIRED BY STUDENTS	Academic Talents	Creative Talents	Communication Talents	Planning Talents	Decision Making Talents	Forecasting Talents	Other Types of Talents	TOTALS
Language Arts		x	xx					xxx
Social Studies		x		x	x			xxx
Humanities	xx	x				x		xxxx
Arts		x	x				x	xxx
Biological Sciences	x		x		x			xxx
Physical Sciences	x	x		x				xxx
Mathematics	x				x	x		xxx
Other Subjects				x	x			xx
TOTALS	xxxxx	xxxxx	xxxx	xxx	xxxx	xx	x	24 x's Grand Total

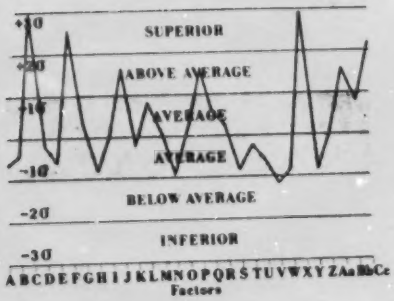
DIFFERENT TALENT PROCESSES IN STUDENTS

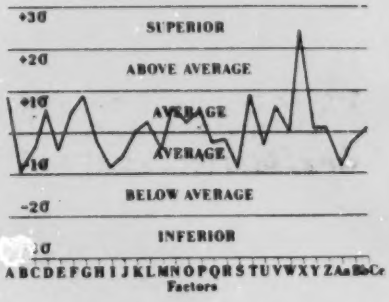
Figures 1A & 1B: THE TWO STUDENT-CENTERED DIMENSIONS OF CONTENT AND PROCESSES

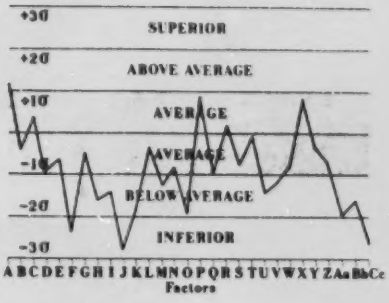
. . . . . .

"On the Role of Creativity in History," Arnold Toynbee points out that creative talent is the talent which, when functioning effectively, can make history in any area of human endeavor. In his second paper he raises the question "Is America Neglecting Her Creative Talents" (and thus her future history). In it he mentions that creativity is mankind's ultimate capital asset--a matter of life and death for any society. He concludes that if America is to fulfill her manifest destiny, she must treasure and foster all the creative potential that she has within her. To do so, his conviction is that a new and right spirit of change has to be injected into her educational philosophy. It would therefore follow that new educational philosophies and new institutions of learning need to be constructed to provide an opportunity for creative individuals to enhance their talents in schools. (In Creativity Across Education, University of Utah Press, 1969).

. . . . . .







MODULE FIVE

Self Awareness

Introduction

Is it all right to be bright? For many students the answer is "No!" until too late. The gifted, the talented, the creative in many instances appear to be developmentally accelerated. For example, some gifted ten year-olds are already fighting the adolescent developmental task of establishing independence from adult authority figures.

It hurts to be different and have that difference ignored. It also hurts to be different and have that difference not accepted by adults or by peers. All too often, gifted students go unrecognized: A U.S. Office of Education survey found 57 percent of the administrators responding saying that there were no gifted children in their districts! All too often the gifted are not accepted, many teachers find them threatening, and many peers find them weird.

Who can they turn to when everyone else turns away? The best help comes from inside. But even gifted people need psychological support as they build the ego strength to be as different as they have the natural potential to be.

Objectives

Upon completion of this module, you should be able to

1. write an effective objective for a gifted program.
2. recognize the attributes of accelerated development in one or more gifted students.

Overview of the Content

1. Bob Male discusses the work of the University of Wisconsin Guidance Institute for Talented Students (G.I.F.T.S.)-formerly the Lab for Superior Students-which has been in operation for about 30 years.
2. Phil Perrone lays out a scenario based on the premise of accelerated development.
3. John Rupenthal, who was served by the Lab for Superior Students while in high school, shares his "case study." This effectively links the ideas of accelerated development and the work of the lab.

4. Phil Perrone shares student and program objectives for gifted student programming, based upon the work of the Guidance Institute for Talented Students.

5. Barbara Bickford's paper reviews the conjoint phenomena of giftedness and alienation.

Learning Activities

Core Activities

1. View videotape #4 -- Self Awareness. Pay close attention to the idea of a case study as a way of finding out about giftedness. Also be sure to note the student objectives articulated by Phil Perrone at the conclusion of the tape.

2. Read Barbara I. Bickford's "The Alienated Gifted: A Problem to Self and Society." (pp. 145)

3. Note carefully the student objectives Phil Perrone enunciates for gifted programming. (pp. 143)

Application Activities

1. Choose two students who are exhibiting consistently superior performance in some aspect. Sit down with each of them in an individual conference for 15 minutes in which you tell each student, specifically, what he or she has done to attract your attention.

   Example: "I really like your creative approach to the task I give you. For example . . . ."

   After the conference, monitor the student's behavior in the area you choose to highlight. Monitor your own reactions to the student's subsequent behavior. Be ready to discuss what happens.

   After one week write a brief paper (no more than two pages) describing what happens in your relationship to these students.

2. Review the Perrone student objectives for gifted programs. Phil says the first objective should be to diminish self-dissatisfaction. Write ten possible ways in which this could be done. Be brief. For example: help the student gain peer acceptance.

3. Write in your journal for this week.

4. Other activities as assigned by your instructor.

_____

_____

_____

_____

_____

Quest Activities

1. Wordsworth wrote, "The child is father of the man." Was he right, or is it possible to hide your talent through adolescence, then spring into full bloom in adulthood? Discuss this with a colleague.

2. After the bibliography for this module, you will find an unfinished poem. Write the last three lines for it.

3. Get a list of Harighursts "Developmental Tasks." Assume for a minute that a 150 IQ means that a 150 IQ six-year-old will be thinking like "the average _____ year old. (Answer is nine.) If this is so, on what developmental tasks will the 150 IQ ten-year-old be working?

Evaluation

1. Send your instructor your (less than two-page) summary of your follow-up with the two gifted students.

2. Send your instructor your list of ten ways to help a gifted student diminish self dissatisfaction.

3. Other evaluation activities assigned by your instructor.

_____

_____

_____

_____

_____

References

All of these articles are from Barbe-Renzulli.

1. Adjustment Problems of the Gifted -- Edith H. Grotberg p. 208

2. Problems of Highly Creative Children -- E. Paul Torrance p. 214

3. Friendship and the Intellectually Gifted Child -- Harriet E. O'Shea p. 220

Help Me to Be

by

Robert E. Clasen

Who am I? What am I? What will I be?
The world looks like trouble as far as I see.
My parents can't tell me -- neither my friends --
Just where the road goes or even its bends.

Who am I? What am I? What will I be?
Can teachers, a book, or the school help me see
The way I must travel, the road I must go
Or help me get on with my own private show?

Who am I? What am I? What will I be?
Is it good to be quick, to be bright, to be me?
And is it good to think as I do?
To which ones and which thoughts should I be true?

Who am I? What am I? What will I be?

_____

_____

_____

Who am I? What am I? What will I be?
Help me. Help me. Please help me to be.

MODULE SIX

A Qualitatively Different Program

Introduction

The phrase " a qualitatively different program" is the battle cry of this wave of interest in the gifted, talented, and creative. The phrase has three key words:

1. Qualitatively -- not just quantitatively
2. Different ------ something else, not more of the same
3. Program -------- not isolated activities, a unified program.

This module focuses on the description of a qualitatively different educational program, as defined by Jospeh Renzulli of the University of Connecticut.

Objectives

At the conclusion of this module, you will be able to

1. differentiate between Types I, II, and III learning experiences a la Renzulli.
2. list ten thinking and feeling processes and suggest strategies for developing each.
3. show how community involvement is critical to the development of the Enrichment Triad Model.

Overview of the Content

1. Joe Renzulli elaborates the Enrichment Triad Model with assistance from some illustrative film clips.
2. Clasen summarizes the Enrichment Triad Model in a brief (Renzulli-approach) paper.

Learning Activities

Core Activities

1. View videotape #6 - Qualitatively Different Program. Make notes on the three types of enrichment activities. Note particularly Renzulli's rationale for the development of the model.

2. Read the Clasen summary of the Renzulli model in the Readings (pp.167).

Application Activities

1. Type I. Make a list of ten places within a walking distance of your school at which students could be exposed to a content-relevant, real-life experience. Make a list of ten persons in your community who do things, know things, or have hobbies that are content relevant and could be shared with a class.

2. Type II. List ten thinking and five feeling skills. Across from each skill list an activity or exercise (appropriate to the age level of your students) that will help them develop this skill.

3. Type III. With a group of students, generate a list of problems in your community that need attention or a solution (Note: Do not be judgmental of what the students regard as problems). Ask the group to generate at least one thing that they could do to solve one of the problems, either as individuals or small groups.

   Now write a brief synopsis of their list and what they think they can do. Analyze the solution and their contribution to it for curricular implications. (For example: Does it require them to read, write, compute?)

4. Write in additional activities assigned by your instructor.

_____

_____

_____

_____

Quest Activities

1. Renzulli recommends simulation activities, values clarification, and gaming for Type II enrichment. Check with other faculty members and your district's instructional materials person to find a simulation, game, or value-clarification exercise appropriate to the age of your students. Try it with them. Note whether the students who are successful under the regime are as successful in this exercise.

2. Attached to this module, behind the reference section, you will find Frank Williams model for implementing cognitive and affective behaviors in the classroom. At first glance it appears terribly complex, but it isn't. Try to make up one or two exercises for Dimension 2 (Tracking Strategies). If you have trouble, consult Frank E. Williams, Classroom Ideas for Encouraging Thinking and Feeling. (Buffalo, New York, D.O.K. Publishers, Inc.) 1970, for nearly 200 pages of suggestions.

3. Encourage your district to make a comprehensive list of people who know or can do things that may be curriculum relevant. Invite some of those persons in, or (with parental permission) send students out to visit such people. Allow students to process this experience in any way they see fit (including doing nothing).

Evaluation

Send the three brief papers called for in application activities to your instructor.

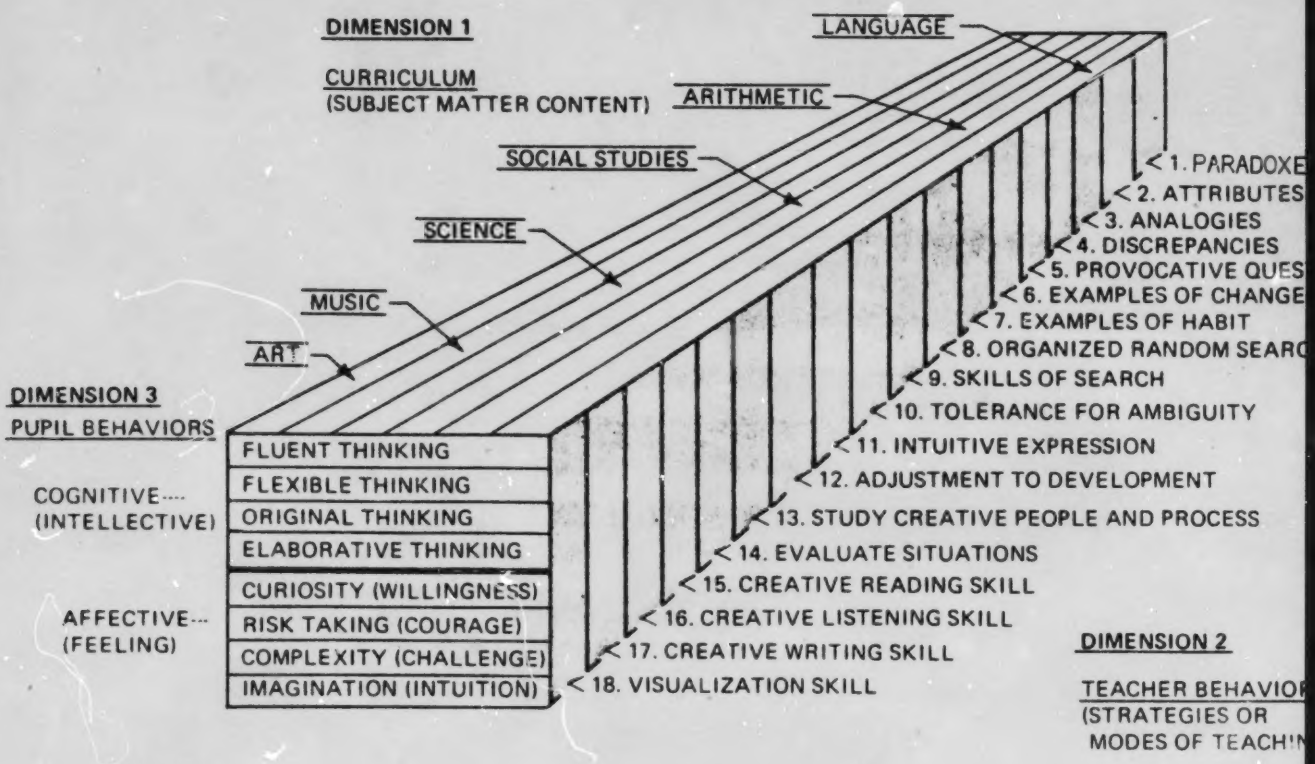
References

All of these articles are in Barbe-Renzulli.

1. Three Facets of Intellect -- J. P. Guilford p. 75
2. Primary Mental Abilities of Children -- Thelma G. Thurstone p. 91
3. The Study of Giftedness: A Multidimensional Approach -- J. W. Getzels and P. W. Jackson p. 99

A Model for Implementing Cognitive-Affective Behaviors in the Classroom

D1⇄D2→D3



DIMENSION 3

Pupil Behaviors

Behavior	Meaning
COGNITIVE – INTELLECTIVE	
FLUENT THINKING To think of the *most* - -	Generation of a quantity Flow of thought Number of relevant responses
FLEXIBLE THINKING To take *different* approaches - -	Variety of kinds of ideas Ability to shift categories Detours in direction of thought
ORIGINAL THINKING To think in *novel* or *unique* ways - -	Unusual responses Clever ideas Production away from the obvious
ELABORATIVE THINKING To *add on* to - -	Embellish upon an idea Embroider upon a simple idea or response to make it more elegant Stretch or expand upon things or ideas
AFFECTIVE – FEELING	
RISK TAKING To have *courage* to - -	Expose oneself to failure or criticisms Take a guess Function under conditions devoid of structure Defend own ideas
COMPLEXITY To be *challenged* to - -	Seek many alternatives See gaps between how things are and how they could be Bring order out of chaos Delve into intricate problems or ideas
CURIOSITY To be *willing* to - -	Be inquisitive and wonder Toy with an idea Be open to puzzling situations Ponder the mystery of things To follow a particular hunch just to see what will happen
IMAGINATION To have the *power* to - -	Visualize and build mental images Dream about things that have never happened Feel intuitively Reach beyond sensual or real boundaries

MODULE SEVEN

A Caring Adult

Introduction

Think back about your own education. Write the name of the teacher who influenced you most. Write his or her name here.

_____

Now write exactly what that influence was

1. _____

2. _____

3. _____

I remember Art Drews, the band director at South Milwaukee High School, who convinced me that I could be as good a French horn player as I wanted to be and gave me an object lesson in teaching by allowing me to tutor less experienced players. As a result, I played horn all through college and even kept my country free with a French horn while serving in the 56th Army band.

Most of us can recall a teacher who really meant something. Some have had two or three. What was it these people had who made it possible for others to go and to do?

Objectives

Upon completion of this module, you will be able to

1. list the characteristics of teachers preferred by gifted students.

2. decide whether or not to volunteer to teach gifted students.

Overview of the Content

1. Bob Rossmiller argues that not all teachers should be teachers of gifted students.

2. Nor does Bob believe that gifted students should be "sprinkled like sugar" across a teacher's load.

3. Bob believes that the best teachers for the gifted are those who are continuing to perform in their area of instructional expertise.

4. Bill Endle and John Adams discuss each other -- and illustrate Bob's points.

5. Leonore Dickmann argues for "symmetrical people" as teachers of the gifted.

6. Maribeth Mohan, a gifted teacher, writesabout teaching creative writing and, in the process, reveals a lot about herself.

Learning Activities

Core Activities

1. View videotape #7 - The Helping Adult. Make special note of Bob Rossmiller's definitions of a gifted teacher. Note, too, what John Adams sees in Bill Endle and how Bill treated John.

2. Read Leonore Dickmann's "Seven Sides of Symmetry." Are you a symmetrical person? (pp. 171)

3. Read Maribeth Mohan's "You Can't Teach Creative Writing". Note the characteristics Maribeth brings to her task of teaching gifted students, as much as her specific suggestions for teaching creative writing. (pp. 177)

Application Activities

1. Write a brief essay -- no more than two pages -- on whether or not gifted children need gifted teachers.

2. In this module you are exposed to two teachers of gifted students, gifted teachers Bill Endle and Maribeth Mohan. Write a paragraph or two explaining how they are alike or different and how each varies from some of Bob Rossmiller's ideas about teachers for the gifted.

3. Work on your journal.

4. Write other assignments given by your instructor here.

_____

_____

_____

_____

Quest Activities

1. Most teachers believe that what they do is "helpful" to students. Do students think so?

   Ask students to generate a list of the things that you do to, for, and with them. Keep working until you get a list of 20 or more things.

   Ask them to copy down the list. Now have them divide the paper into three columns. In the first column have them place a check (✓) for each activity they regard as "fun." In column two have them place a check (✓) after each activity they regard as "helpful." In the third column ask them to place a check (✓) after each activity in which they regard themselves to be successful.

   Identify two or three children in your class who exhibit consistently superior performance. Is their pattern of responses consistent with each other? If so can you notice any differences in the way they respond and the way two or three of the least successful students respond?

2. For some people the idea of "personal symmetry" is a very useful idea. Go through the list of bipolar pairs of words provided by Dickmann in her article. Circle the word in each pair that is the more descriptive of you. When you finish, consider the pattern. Is this the way you want to be?

Evaluation

Send your instructor the essay on gifted teachers for gifted students and the comparison of Bill Endle and Maribeth Mohan with each other or with Bob Rossmiller's ideas.

Write other evaluation exercises assigned by your instructor here.

_____

_____

_____

_____

_____

References

All of these articles can be found in Barbe-Renzulli.

1. Teaching the Gifted - A New Frame of Reference -- Walter B. Barbe and Edward C. Frierson p. 435

2. The Role of the Teacher of Gifted and Creative Children -- Joan B. Nelson and Donald L. Cleland p. 439

3. Characteristics of Teachers Judged Successful by Intellectually Gifted, High Achieving High School Students -- William E. Bishop p. 449

4. Creative Teaching Makes a Difference -- E Paul Torrance p. 460

MODULE EIGHT

Going Faster

Introduction

In many instances, gifted students are able to learn the same material in less time. In short, they learn faster. In one individualization project, a gifted linguist (who, incidentally, did not know she was a gifted linguist until this course) finished Spanish I in a little over three weeks, then polished off Spanish II by Christmas. Had the option to go faster not been available, the student might neither have gained those two credits in one semester nor discovered that she had a gift for language.

The problem with allowing gifted students to learn faster is summed up in the words "then what?" What happens when some children leave kindergarten, reading at the sixth grade level, if the first-grade teacher is not prepared to cope with that? What happens when a 15-year-old girl has enough credits to graduate from high school?

In many schools the answer is to give faster learners independent study projects in the areas of their strength, force them to do extra work in areas in which they have little or no interest or, more popularly, allow them to read. Are these solutions the best we can find?

Objectives

Upon completion of this module, you will be able to

1. argue the merits of educational acceleration.
2. identify ten possible ways in which a school can accommodate the faster learner.

Overview of the Content

1. Bob Rossmiller argues that many gifted students can finish the essential learnings of a particular course in about six weeks.
2. Julian Stanley argues convincingly for acceleration, based upon his experiences with precocious math students at Johns Hopkins University. (pp. 181)
3. Dr. Stanley questions "enrichment."

Learning Activities

Core Activities

1. View videotape #8 -- Going Faster. Make particular note of the attitudes of the Racine children in the constant progress primary unit. Note Bob Rossmiller's arguments for allowing the gifted to learn at their own pace.

2. Read Julian Stanley's "Identifying and Nurturing the Intellectually Gifted." Read very carefully his three types of enrichment. Also make note of his views on the social implications of acceleration and his hesitancy with the word "peer."

3. Other activities assigned by your instructor.

_____

_____

_____

_____

Application Activities

1. Dr. Stanley identifies these types of enrichment: "busy work," "irrelevant academic enrichment," and "cultural." Write a brief paper (less than two pages) comparing and contrasting these types of enrichment with Renzulli's three types of enrichment.

2. Dr. Stanley raises a key point, "Who is the peer of the gifted child?" Write a one- or two-paragraph response to this question.

3. Work on your journal.

4. Other activities, as assigned by your instructor.

_____

_____

_____

_____

Quest Activities

1. Following the bibliography for this unit is a "partial list of approaches for educating the gifted and talented." In the columns on the right, check the availability of the option in your school district.

   Final Score: School _____

   Gifted _____

2. What to do with the gifted when they are done is a bugaboo. Make a list of ten specific things you think can be done. It would be a better list if you write the name of a specific child and focus the ten strategies on him or her.

Evaluation

Send your instructors the two products requested in the application activities section.

References

All of these articles are to be found in Barbe-Renzulli.

1. Program Organization and Implementation -- Virgil S. Ward p. 295
2. Early School Admission for Mentally Advanced Children -- Jack W. Birch p. 303
3. Homogenous Grouping for Gifted Children -- Walter B. Barbe p. 308
4. Designing and Implementing a Program for the Gifted and Talented -- Leonard G. Lanza and William G. Vassar p. 316
5. Identifying Key Features in Programs for the Gifted -- Joseph S. Renzulli p. 324

Partial List of Approaches for
Educating the Gifted/Talented

	Available	Not Available
1. Acceleration (skipping grades)		
2. Enrichment (teaching more about a topic in the same time)		
3. Condensation (teaching the same content in less time)		
4. Administrative decisions		
5. Advanced placement (higher level courses)		
6. Advanced work (within the classroom)		
7. Assisting younger pupils (peer tutorials)		
8. Auditing		
9. College-level courses for high school students		
10. Correspondence study		
11. Creativity (exercises)		
12. Curriculum-planning activities by staff for gifted, with gifted		
13. Early admission		
14. Enrollment in two classes simultaneously		
15. Guidance for gifted/talented		
16. Honors programs		
17. Identification (regular occurrence)		
18. Independent study		
19. Individualized instruction		
20. Learning environment modification so gifted have more control		
21. Learning styles of gifted/talented (cognitive style mapping)		
22. Nongraded and continuous-progress plans		
23. Offerings beyond the usual curriculum		
24. Programmed learning and computer-manged instruction		
25. Provisions of supplementary learning centers		

MODULE NINE

Going Deeper

Introduction

Come to think of it, what are generally called cocurricular activities have a lot going for them:

1. They are voluntary,
2. They end in a product or performance,
3. They don't take forever,
4. They correlate better with life choices than do most academic subjects.

The students in computer club, jazz ensemble, or blood typing may all be well on their way to finding out something about themselves and the real world. People look back in fondness at the pep band and the team, but English I is lost in the dim recesses of never learned or learned --but--forgotten. In fact, the vast majority of what we learn in traditional learning models is forgotten within seven weeks.

Renzulli argues that gifted students are a combination of ability, creativity, and task commitment. In many instances they can produce products and performances that deserve an audience and a market. Why then, should such students be placed in a situation of learning to forget when they could be thinking, feeling, and doing like the professionals whom they emulate?

Objectives

At the conclusion of this module, you will be able to

1. define a Type III enrichment activity
2. identify a possible Type III enrichment activity for a student in his or her area of specialization.
3. differentiate the role of the sage on the stage from the guide on the side in three important ways.

Learning Activities

Core Activities

1. View videotape #9 -- Going Deeper. Note Renzulli's rationale for Type III activities and his delineation of the teacher's role in carrying them out.

2. Read Clasen's summary of Renzulli's Type III enrichment activities in the Readings (pp. 191).

Application Activities

1. To be an effective teacher for allowing students to go deeper a la the Enrichment Triad Model you must

   a. manage learning (not teach).
   b. focus on "How to" (not content).
   c. find markets for student efforts (audiences).
   d. help students to define
      researchable
      product-oriented
      voluntary
      learning tasks.

   Try it with just one activity with one gifted student or a group of students. Write a brief description of your activity and its result. (No more than two pages.)

2. Continue to write in your journal.

Quest Activities

1. Type III enrichment activities almost invariably lead into the community and the use of community resources in the classroom. This is not the "usual" style for most classrooms. Do a force field analysis of the forces that would inhibit and facilitate the doing of Type III activities in your school setting. A model for doing a force field analysis is enclosed after the bibliography.

2. When Renzulli works with a school district on the Enrichment Triad Model, he has the students learn the meaning and purpose of Type I, Type II, and Type III activities so that the teacher can "justify" the activity by saying, "This is a Type II activity focused on divergent production." Do you think this is a good idea? Why? Why not?

3. Get a copy of Renzulli's book <u>The Enrichment Triad Model</u>. Note the subtitle carefully. After reading the book, do you think the subtitle is justified?

Evaluation

1. Send in your summary of experiences with the Type III enrichment activity.

2. Send in evaluation experiences assigned by your instructor.

References

Joseph Renzulli. The Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted and Talented. (Wethersfield, Conn. Creative Learning Press, 530 Silas Deane Highway, 06109), 1977.

Discussion Technique

Force Field Analysis

Pose this problem for the group of three to five colleagues.

On paper list (individually) six forces in this district (area) that would cause teachers to consider Type III Enrichment Activities and to acquire the skills to implement them.

Below these, list three forces in this district (area) that are keeping teachers from the successful implementation of Type III Enrichment activities.

The leader calls on each person and elicits <u>one</u> positive force from each person.

Ground Rule #1: Do not evaluate the ideas.

Ground Rule #2: Only the discussion leader may interact with the person listing, and may only ask clarifying questions designed to understand the meaning of the idea.

Ground Rule #3: Have a recorder list the ideas where they can be kept on display.

Note: If someone's ideas are seemingly unrelated or diametrically opposed to the discussion leader's views, they still should be listed. (Reserve judgment!)

This process may continue (a) until no new ideas emerge or (b) until each person has had an opportunity to suggest one or two.

Next, the discussion leader elicits a similar response from the group with respect to forces that are negative where Type III activities are concerned. The procedure is the same.

At this time, two lists should exist: (1) forces against the implementation of Type III activities and (2) forces for the implementation of Type III activities

Give each person two votes. Ask them to vote for the two forces (in the <u>negative</u> column) that have the greatest potency.

Tabulate the votes (SHOW OF HANDS, CALLING OUT NUMBERS, etc.)

Give each person two votes. Ask each to identify the two most potent positive forces.

Tabulate the votes.

Using the form on the next page or a facsimile, list the most potent positive and negative forces operating.

If time permits, break the group up into teams of three people. Ask them to identify three ways in which the key negative force (the one getting the most votes) can be overcome.

List their solutions.

PROBLEM: _____

FORCES OPERATING AGAINST THE SOLUTION OF THE PROBLEM	FORCES THAT ARE POTENTIAL ALLIES IN SOLVING THE PROBLEMS
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

MODULE TEN

Going Wider

Introduction

Folks used to argue that for every gift there is a compensating weakness. Research tells us that for every gift there is usually a compensating gift.

Many gifted children choose to focus to be incredibly one-sided. Classic cases are "the athlete," "the musician," and "the reader." Others show an unusual penchant for a discipline -- math, for example.

The ubiquitous "they" tell us that in the future, persons will be pursuing two or three careers in a lifetime and that, while the only constant is change, it will speed up, incredibly! If this is true, can we justify letting the gifted (while in our hands), lock themselves into one thing? And if the answer to that is "no," what do we do about it?

Objectives

At the end of this module, you will be able to

1. identify ten ways to "go wider with the gifted child."
2. differentiate between going wider within a discipline and going wider across disciplines.
3. argue the pros and cons of one-sidedness.

Overview of the Content

1. Beecham Robinson argues for going wider rather than allowing the gifted to develop in a single talent area.
2. The Fourth Street School in Milwaukee is offered as an example of what can happen when the community gets involved.
3. Thelma Richardson explains how a device like creative dramatics can spin off an entire language arts curriculum.
4. Beecham Robinson presents five sources of help for going "wider" with the gifted child.

Learning Activities

Core Activities

1. View videotape #10 -- Going Wider.

2. Read Beecham Robinson's article "Going Wider with the Gifted Child," Readings pp. 193.

Application Activities

1. Imagine for a minute that you have a student who is into drumming--only drumming. The student is very good at it. Although there are no signs of effort, the student appears to be able to "get" academics if pushed to the wall.

   Write a brief (less than two-page) paper suggesting how an interest in drumming can spin off into three of the following: math, science, art, history, creative writing, anthropology, or _____.

2. Going wider can also mean getting out of the classroom and the traditional disciplines. Make a list (using Robinson's suggestions) of the places in your community or school where one-sided children can be exposed to tangential aspects of their gifts.

3. Work on your journal.

Quest Activities

1. Some gifted persons have lived to regret their contributions. Check the biography of the father of the atomic bomb. Can you identify others who regretted their gifts? Share some of these case histories with your classes.

2. Some one-sided persons lead very happy lives (their own view), blocking out everything else. Find some case histories of such persons. What are the implications for working with gifted but one-sided students in the classroom?

Evaluation

Send the instructor the products from the first two application activities.

References

These articles are all to be found in Barbe-Renzulli.

1. Schedules, Bells, Groups, and Independent Study -- William M. Griffin p. 330

2. A Model for the Analysis of Inquiry -- Richard Suchman p. 336

3. Learning by Discovery: Psychological and Educational Rationale -- Hilda Taba p. 346

4. Learning and the Learning Center -- Mildred L. Krohn p. 355

MODULE ELEVEN

Creativity

Introduction

Some gifted students get along just fine in school -- from all appearances. There is another group that seems less willing to conform and go along. In general, these are the high creatives.

Of course it is impossible to run a school in which no one conforms. But it should be possible to run a classroom so that those who view the world differently can find it an interesting and psychologically safe place to be.

Some students, when given more control over what they learn and how they learn it, do very well on their own. Others need to be guided to deal with their natural beat to look at the world differently from the way those around them look at it. Both solutions are viable; both require changes in skill, knowledge, and attitude on the part of many teachers.

Many teachers would like to accommodate divergent thinkers in the regular classroom, if they only knew how. That's what this module is about.

Objectives

At the conclusion of this module, you will be able to

1. list the factors in your classroom that inhibit or facilitate creative thought and response on the part of students.

2. develop a lesson plan for a regular curricular learning that provides an opportunity for the development of original, elaborate, fluid, or flexible thought.

Overview of the Content

1. Chuck Pulvino lists the blocks to creativity. Make notes to see how many operate in your classroom.

2. Pulvino reviews the creative process from tension to evaluation. Be sure to catch the idea of incubation.

3. Pulvino's paper "Reflections on Creativity" (Readings, p. 199) is a reading rerun of the video tape. Some people don't like this--they want supplementary material. Others claim it is helpful because they missed so much on television.

4. Kay Bull offers a comprehensive view of ways to be "Maximizing Creative Potential." (pp. 211)

Learning Activities

Core Activities

1. View videotape #11 -- Creativity.

2. Read Chuck Pulvino's paper "Reflections on Creativity" in the Book of Readings.

3. Read Kay S. Bull's paper "Maximizing Creative Potential" in the Book of Readings.

4. Study "Divergent Questioning Models" by Will Roy (included after the bibliography section of this module).

Application Activities

1. Present students with some of the exercises suggested by Pulvino. Watch the reaction of your students. Is it th straight-A conformers who seem to be enjoying the problems? Write a two-paragraph report.

2. Using "Divergent Questioning Models" attached to this module, develop a set of content relevant questions (four-five) that you can pose to students.

   Write a brief (two-paragraph) report of what happens when you pose them.

3. Work on your journal.

Quest Activities

1. Read the Kay Bull article carefully. See if you can divide your class into the recognized-unrecognized creativity quadrants Bull suggests. See if the Will Roy suggestions in "Divergent Questioning Models" or the Pulvino "games" help you to assign students to each quadrant.

2. Using viewpoint questions (see Roman numeral V of the Will Roy article) is a good way to stimulate fluency and elaborateness (press for details).

   Try out a few on your class.

Evaluation

Send the instructor the two brief papers requested in the application activities section.

References

The Kay Bull article contains an excellent bibliography on creativity. Check it for references.

DIVERGENT QUESTIONING MODELS

Will Roy - University of Wisconsin-Milwaukee

Divergent thinking is posing challenges, puzzles, and problems that do not have a correct answer and therefore stimulate a wide variety of responses. By using the following questioning techniques in your classroom, your students will be encouraged to think divergently and will develop the skills to become a fluent, flexible, original, and elaborative thinker.

I. Quantity Questions

1. List all the _____.
2. How many ways can you come up with _____.
3. List as many _____ as you can.
4. What are all the possible solutions you can think of _____?

By using this type of question, you will encourage the students to be fluent in their thinking. We also call this process Brainstorming. The students are producing an unusually large quantity of possible ideas, attitudes, or behaviors. It is important for the students to defer their judgment when Brainstorming, even though this is difficult to do. Avoid evaluating the responses at this time. Work for the number of ideas -- the wilder the idea, the better.

Some examples of questions that encourage fluency are:

How many ways can you think of to get to school?

You are on a National Committee to determine ways to encourage people to stop polluting. How many ways can you think of to stop this serious problem?

If a coca cola can was the only thing left of a civilization, what are all the things that you would know about that society?

What are all the things that come between the attic and the basement of a house?

What are all the ways that you can use an empty orange juice can?

How many ways can you think of to measure the heighth of a tree?

List all of the things that you love to do.

What are all the things that you can do on a Saturday afternoon?

What are all the things that come between Valentine's Day and Memorial Day?

How many three syllable words can you think of that end in le?

What are all the words you can think of that rhyme with game, spoon, pickle, red, shoe, super, teacher, doctor, or kid?

What are all the possible solutions you can think of to open a beverage bottle without using a bottle opener?

What are all the things that come between you and your teacher?

List all the words that you can think of to describe your hand.

II. Forced Associations

1. How is a _____ like a _____?

2. Get ideas from _____ to improve _____.

3. I only know about _____. Explain _____ to me.

By using this type of question, you are asking your students to use associative thinking. They will concentrate on making comparisons between different things. Try it, for example:

How is a catfish like a telephone pole?

How is an egg like a paragraph?

How is a magnet like fishing bait?

How is a calendar like a mirror?

How is a bacon, lettuce, and tomato sandwich like teaching kids?

How is a pencil like a song?

Which is happier, a blade of grass or a snowflake?

Which is faster, gossip or a racehorse?

Which weighs more, a scream or a bag of groceries?

Which is deeper, an oil well or loneliness?

Which lasts longer, a smile or an ice cube?

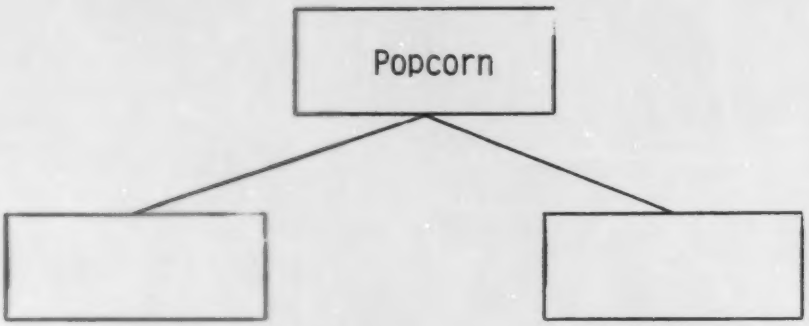
How is a kite like the first day of school?

Which takes up more space, a pickle or a toothache?

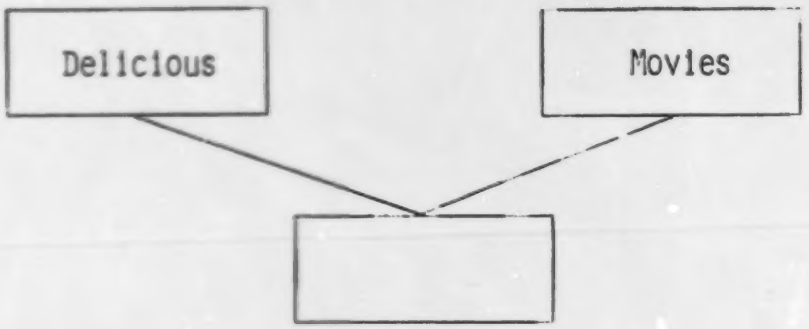
What vegetable is most like you? animal? numeral? fruit?

Try associative thinking this way:

What two words does Popcorn make you think of?



Write your two words in the boxes. Now -- associate those two words. What one word do they make you think of?



What word have you written in the last box? _____

How is it like Popcorn? _____

_____

_____

1. Read essays on a given subject (e.g., Vietnam War). What inferences can one make about the author's attitude toward the topic? What evidence is there in the writing itself?

2. Political (Social) Cartoons: Attitude expressed? Inferences? Analogies?

3. Mass advertising: What inferences are meant to be drawn by the viewer/reader? What facts support the claims?

4. Evaluative Thinking
   a. Distinguish between public and private criteria. The former are criteria upon which the group agrees; the latter are personal. Make a criteria list for the best basketball player who ever lived (e.g., scoring average, assists, rebounding, percentage of shots, foul shooting, etc.). Have students apply criteria to list of players brainstormed as possibly meeting criteria. Are there still differences in the final choice? Why? Does the choice fit personal preference? Why or why not?
   b. Self-evaluations by students: Which are statements that lead reader to make inferences? (e.g., I worked hard this semester!!).

5. Everyday Inferences
   a. Caricatures and stereotypes: What is the difference between the two? Is prejudice the result of inferences drawn from careless observation? What "facts" support any stereotype? Brainstorm words and phrases that are attempts to stereotype. Find some that are analogies (e.g., He's a cuckoo!). Study the habits of the cuckoo and see if the meaning fits.
   b. Appearances
      1) How is personal appearance used as a criterion for judging people? Students could role play by dressing and acting in certain ways to create appearances that cause people to make quick inferences. Does a beard make one a hippie? Are there expectations in different settings, for different roles, regarding how people should look and act? Should there be? Check on how service people respond to the same individual in different dress. A reverse analogy is that some birds often chase away only their kind and live harmoniously with other species.
      2) For many, technology appears to be a savior. All problems can eventually be solved by technology. For others, the technology is as ridiculous as attempting to clean the Augean stables by adding more horses. They see technology as a destroyer. What observations support either point of view? Which do not? What inferences are either group making? . . . A good debate topic.

III. Involvement Questions

1. How would _____ feel if it were human and had feelings?

2. How would you feel if you were _____?

3. If you were _____ what would you (see, taste, smell, feel)?

4. You are a _____. Describe how it feels.

By using this type of questioning you will not only encourage the students to use associative thinking but, they will draw analogies between their own personal feelings and another object or situation.

Try these:

How would you feel if you were the kite that Ben Franklin flew?

How would you feel if you were the baseball that won the World Series?

How would a drop of water feel under a microscope?

How would a chair in the United States Presidential Oval office feel?

How would an old shoe in the junkyard feel?

How would you feel if you were the space rocket that took the first man to the moon?

How would you feel if you were the first snowflake of the winter?

How would you feel if you were Paul Revere's horse?

How would you feel if you were the first atomic bomb?

How would the Sears Tower feel in a rainstorm?

IV. Reorganization Questions

1. What would happen if _____ were true?

2. Suppose _____ happened, what would be the consequences?

3. What would happen if there were no _____?

By using this type of question, you ask the students to imagine that something is true or did happen which is not true or did not happen and to consider the consequences.

Some examples of these questions are:

What would happen if _____?

Suppose you woke up this morning to find that you were the strongest person in the world.

What would happen if snow were green?

What would happen if pigs could fly?

What would happen if the pilgrims landed at "San Francisco Rock" instead of Plymouth Rock?

Suppose people were only 5" tall. What are the things that might happen?

What would happen if you grew to be 10 feet tall?

What would happen if there were no more schools?

What would happen if there were no music in the world?

What would happen if there were no Saturdays?

What would happen if there were no food left in the world to eat?

What would happen if up and down were reversed?

What would happen if Lake Michigan were moved to Arizona?

Suppose left and right were reversed. What are all the things that might happen?

What would happen if you had four hands and arms?

What would happen if all books were suddenly burned?

Just suppose it were A.D. 2500. What kind of class newspaper would you publish?

Suppose you could have $1,000,000. What would you do?

You have just been given a magic wand that will change the size of things in the world. What would you make smaller? larger?

You have been given the power to make PEACE throughout the WORLD. How will you use this power?

Suppose you could have anything in the world that you wanted. What would it be?

Suppose all newspapers cost at least $1.00.

Suppose only women could vote.

Suppose all people looked exactly alike.

Suppose that the Wright Brothers had not yet invented the airplane.

Suppose Winston Churchill had been a U.S. citizen.

Suppose you are able to fly. What are all the things you would do?

Suppose you were invisible.

Suppose you had the secret formula to cure the common cold. What would you do?

Suppose we walked on our hands and not our feet.

You can have all the knowledge in the world by swallowing one tiny time capsule. What would you do?

V. Viewpoint Questions

1. How would this look to a _____.
2. How would a _____ mean from the viewpoint of a _____?
3. How would _____ view this?

By using this type of question, the students must be flexible in their thinking and try to see things from a different point of view.

Some examples of these questions are:

How would a penguin describe ice?

How would the world today look to Ben Franklin?

How does Thanksgiving dinner look to a turkey?

How does an Olympic stadium look to an airplane pilot? to an ant?

What does the first floor of your house look like from the basement?

How would a tennis shoe look to the tennis courts? to a tennis ball?

How would a baseball look to a bat?

How would the color red look to a bull?

How would winter look to an African? an Eskimo?

How would Christmas morning look to a Christmas tree?

MODULE TWELVE

Issues

Introduction

The problem is that there is really no good way to end a course on gifted, creative, and talented students. So many things are left untouched -- but perhaps that's the way introductory courses have to be.

In the last module, concern is focused upon three burning issues related to gifted education:

1. Gifted Minority Students
2. Gifted Handicapped Students
3. Gifted Females

It is clear that each of these issues is worth a course on its own. Over half of us are female. Over ten percent of us are handicapped. Over 20 Percent of us belong to a recognizable minority. There is no reason to believe that giftedness is distributed differently among these groups.

Objectives

At the conclusion of this module, you will be able to

1. explain why to be handicapped and to be gifted are not mutually exclusive.

2. cite three ways in which teachers can keep from limiting the life expectations of gifted females.

3. recognize the threat gifted minority students may pose for many teachers.

Learning Activities

Core Activities

1. View videotape #12 -- Issues.

2. Read Barbara Shade's "Social-Psychological Characteristics of Achieving Black Children," Readings pp. 229.

3. Read Mary Kolton (Sadlon) et al, "The Gifted Handicapped Untapped Potential," Readings pp. 243.

4. Read Donna Rae Clasen, "Gifted Women in a Male Dominated World," Readings pp. 259.

Application Activities

1. Get a small group of teachers together (three-five) for the "Who Participates" activity (attached after the references). Have them decide who should get into the course. Process and write down the reasons for their final decisions. Write a brief report of what went on and your reaction to it.

2. Complete your journal.

Quest Activities

1. Write here the name of the largest minority group in your district _____. Try to determine whether there are any cultural reasons for this group's not being academically successful.

2. Ask the school psychologist to give you the IQ scores (no names) of children in the district who are classified as "emotionally disturbed." If possible, administer a creativity test to one such individual.

References

All of these articles may be found in Barbe-Renzulli.

1. The Gifted and the Disadvantaged -- A. Harry Passow p. 402
2. Talent Potential in Minority Group Students -- Joseph S. Renzulli p. 411
3. Cultivating New Talents: A Way to Reach the Educationally Deprived -- Calvin W. Taylor p. 424
4. The Highly Intelligent Dropout -- Joseph L. French p. 431

Evaluation Activities

1. Send the instructor the results of the "Who Participates Experience."

2. Send the instructor the journal you have been keeping.

WHO PARTICIPATES?

You are a member of an academic advisory committee that must make recommendations to the administration as to who will be selected for various academic programs in your school. There are many qualified people, but you must decide who will benefit the most personally and who will benefit society the most from participating in the following program. You must select one person and give the reasons for your choice.

. . . . . A calculus course is being offered in the senior high school. It was originally designed for seniors but there is one opening left for a junior. It will not be offered next year. Decide which of the following students should be admitted to the course.

1. Betsy: Betsy is a junior who plans to attend a private eastern women's college. She is the top student in the junior class and is looking for a challenging career. She has not chosen a field for a career from the many areas in which she excels, but she frequently considers research in physical sciences.
2. Alan: Alan is a junior who has completed all the science courses that the high school has to offer. He is currently doing an independent study with the chemistry teacher. He is very interested in all the sciences he has studied: chemistry, biology, geology, and botany. He plans to enter the medical field.
3. Tom: Tom is a junior who is trying to get accepted by an exclusive private college. He is an excellent math and science student, and taking the calculus course as a junior will give him the honor credits he needs to be accepted by his chosen college.
4. Janet: Janet is a junior who wants to work in the field of medicine. She is one of the top math and science students. She is interested in attending a summer workshop in Washington, D.C., and the course would enable her to actively participate in the conference.

ATTACHMENT 1

Gifted and Talented Journal

Entry 1. Reactions to the video tape.

Entry 2. Reactions to assigned readings.

Entry 3. Notes on things that have occurred to you from other readings, discussion, or just ruminating.

Entry 4. Describe one activity that this week's unit (tapes, readings) has caused you to undertake with your students. (If you have no students, write one thing you would like to see happen with them.)

Entry 5. Thought for the week. This can be a summary statement, a clipping, an article you found, or a piece of student work that exemplifies a point (be sure to identify the point!).